

REMARKS

Discussion of correction of inventorship

While the originally named inventors were correctly named, cancellation of some originally filed claims has required a correction of inventorship under 37 CFR § 1.48(b) (MPEP § 201.03). The currently pending subject matter was invented only by David Katz and Maria Gentile. Accordingly, applicants request that the Patent Office's records be updated to reflect the correct inventive entity.

Discussion of claim amendments

Claim 17 was amended to make clear that the four steps in the PCR cycle are discrete and not substantially continuous steps by stating that the reaction is maintained for a time at a functional temperature to achieve the intended result. This is amply supported by the specification both by the form in which the description of the invention is presented, and by Example 5 (especially paragraph 0057). Claim 38 is amended to require that at least one primer hybridize with both the target and the standard. This limitation is fully supported by the specification, and was also present in originally filed claim 25. Claim 42 is canceled and rewritten as claim 43, without any intention of surrendering any subject matter or claim scope, and merely to obviate the formal grounds of rejection stated in the Office Action. Accordingly, no new matter is added by way of these claim amendments.

Discussion of the Sections 112 and 101 rejection

Claim 42 stood rejected under Sections 112 and 101 because the claim did not allegedly recite any active, positive steps. Applicants respectfully point out that claim 42 depended from claim 38, which claim 38 did and does recite active, positive steps. Nonetheless, applicants have canceled claim 42 and added new claim 43. The difference between claims 42 and 43 is only of form, however, applicants believe that new claim 43 is not subject to the basis of the rejection of former claim 42. Accordingly, the rejection of canceled claim 42 is moot and should not be reapplied to claim 43.

Discussion of the Section 102(e) rejection over Wittwer

Claims 17 and 18 stood rejected under Section 102(e) in view of Wittwer (USPN 6,232,079). Specifically, the Office Action alleged that Wittwer met each of the claim limitations of claim 17, albeit in a continuous rather than discrete manner. Accordingly, applicants have amended claim 17 to more distinctly point out the differences between the invention defined by claim 17 and the prior art as represented by Wittwer.

Since the change in temperature is now clearly discontinuous, nothing in Wittwer teaches or reasonably suggests the four-step PCR process defined by claim 17. Accordingly, applicants respectfully request withdrawal of the 102(e) rejection over Wittwer.

Discussion of the Section 102(e) rejection over Lapidus (USPN 6,143,529)

All the previously pending claims stood rejected over Lapidus (USPN 6,143,529). Lapidus does not disclose, nor does the Office Action allege that Lapidus discloses, the four-step PCR process defined by claim 17. Similarly, Lapidus does not disclose, nor does the Office Action allege that Lapidus discloses, the use of PCR primers that hybridize to a target nucleic acid only if the target is present in a test sample and to a standard nucleic acid, and then detecting the presence (or absence) of the target nucleic acid by comparing signals generated by the system which are proportional to the amount of the target and standard nucleic acids in the test sample.

Accordingly, Lapidus does not teach or reasonably suggest the inventions defined by claims 17 and 38. All the other pending claims depend directly or indirectly from claims 17 and 38, and therefore, Lapidus also does not teach or reasonably suggest the inventions defined by these claims. Therefore, applicants respectfully request that the 102(e) rejections be withdrawn.

Discussion of the Obviousness Rejection

Amendment
Application No.: 09/747,538
Attorney Docket No.: 6652USO1

Claim 42 stood rejected over Lapidus and Johansson. Claim 42, and its replacement claim 43, are/were dependent on claim 38. The failure of Lapidus to teach or reasonably suggest the invention of claim 38 is discussed above. Nothing in Johansson is alleged to cure the failings of Lapidus. Accordingly, applicants respectfully submit that the obviousness rejection should be withdrawn.


In view of the aforementioned arguments, Applicants submit that the claims are in condition for allowance.

If in the opinion of the Examiner a telephone conference would facilitate the prosecution of the subject application, the Examiner is invited to contact the undersigned at the telephone number indicated below. If any additional fees are incurred as a result of the filing of this paper, authorization is given to charge deposit account no. 01-0025.

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